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TRANSMISSION OF INEQUALITY: THE CURBING EFFECTS OF SHARED-
CUSTODY LAW IN SPAIN.

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ABSTRACT

The past two decades have witnessed several reform laws with the result of favoring joint custody after divorce. However, in the Spanish case, the presumption of mother sole custody is the main alternative for custody arrangement. The most popular justification for this phenomenon is the ongoing social norms of society which takes women's responsibility for child rearing for granted. By doing so, adversely effects appear as a considerably decline in the participation of women in the labour market which in turn will lead to an increase of women's risk of poverty. To overcome this shortcoming, we made a quantitative analysis to test the effect of shared custody, such a recent trend in Spain, on the participation of female in the labour market. Results provide support to the idea that females in Catalonia, Valencian Community and Basque country, where legislation foster shared parenting, are more likely to employed.

KEYWORDS: Joint custody, Gender Equality, Labour Force Participation.

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1. INTRODUCTION

During the first half of the 20th century, courts in Spain became more flexible in regard divorce issues since the reform introduced by Law 15/2005 submits the challenging concept of joint custody. By passing this law, several Autonomous Communities complement the Spanish national legislation favoring once again joint-custody regulation. This implementation is to be understood as a progressive system designed to foster shared parental responsibility on the grounds of gender equality in all spheres of life. By removing the explicit preference for mothers for child custody awards, both parents exhibit the same opportunities for participating in the labour market and, thereby, enhancing their professional development at the same level. Even after the potential attempt of moving away the maternal preference, recent data provided by the Spanish Institute of Statistics shows the opposite situation. In 2016, more than half of custody cases (66,2%) has been awarded to the mother of the children, lower percent than in the previous year (69,9%), and just 28,3% were allocated as shared custody allocation (Instituto Nacional de Estadística, 2017). Although times are changing, the few cases studies undertaken in Spain revealed that the courts continue to grant sole-custody to one parent as opposed to both parents. As a result, approximately 90% of cases are awarded to mothers who receive primary custody (Francesconi & Muthoo, 2003); (Lemon, 1981). We are still subject to a restrained Family Law Jurisdiction in which women is shown as the one specialized in household activities and thus, investing little in market human capital (Becker, 1981) showing how small biological differences between women and men can cause huge differences in life.

Our primarily purpose of this paper is to study the effect of Spanish laws favoring shared custody on the participation of women in the labour market. From now onwards, the allocation of child custody arrangement will be regarded as an exogenous variable in which parents arrive to an agreement in the course of proceedings and afterwards, shared custody will be awarded by the judge. When exogenous variables change, household together with labour market decisions are obviously affected. Hence, we must not overlook the importance of custody's allocation over the actively engagement of women in the labour market.

The joint-custody literature mainly focuses on the well-being of children following divorce (Picontó, 2012). Despite the fact that child-custody's allocation became a nation-wide phenomenon, the debate over joint custody was carried out by relatively small group of papers (Nunley & Alan Seals, 2011). In order to gain a better overall picture from the

beginning of the process of marital dissolution, we made a previous research where it shows that divorced women always worked more than their married counterparts at every age with the presumption of custody allocation to the mother (Fernández & Wong, 2011); (Fernández & Wong, 2014). Going a step further, models were developed to the allocation of property rights (Francesconi & Muthoo, 2003), the allocation of custody which determines the share of marital surplus (Rasul, 2006) and the impact of joint child custody within-marriage investment in children by way of changes in household bargaining power (Nunley & Alan Seals, 2011).

Although important steps have been taken to better understand the possible correlations with the introduction of shared custody, one question has remained largely neglected in the economics literature: how the allocation of custody affect the participation of women in the paid labour market? The main contribution of this papers to the literature is to answer this query and fill the void.

To overcome this gap in the literature, we made a model to identify the effect of a set of variables which have been considered as essential determinants of the labour force participation over the historical literature. In our context, driving special attention to the decision of custody allocation in our model.

To validate our theoretical approach, we use the Spanish 2011 Population Censuses with the purpose of working with latest micro databases. Our model points to an increase in the positive effect of female labour force participation where laws favoured shared custody (i.e. Catalonia, the Basque Country and Valencian Community). Our estimates show that the addition of new variables to the model will not affect the former positive. Indeed, the statistical significance remains constant. An interplay exists between time allocation (i.e. childrearing, domestic burden...) among divorced women of the population with being employed.

The paper proceed as follows. Sections [2](#) and [3](#) provide the theoretical background of the paper and the theoretical background to the Law of Shared custody in Spain. In Section [4](#), we present the data and in Section [5](#) we introduce the methods. The empirical results are displayed in Section [6](#) and the discussion is given in Section [7](#).

2. RELATED LITERATURE

Despite the considerable progress made in the last twenty-first century towards achieving gender equality in the labour markets, social norms seem to still hamper the presence of women in these spheres. When referring to “social norms”, we go along the lines discussed by (Burke & Young, 2009) and (Eriksson, 2015) as customary rules of behaviour that coordinate interactions between individuals in a given society. Those social norms are somehow reflected in gender discrimination within the work environment and in the family setting.

Growing literature has placed a great of emphasis on the relationship of female labour force and the marital status. From an economic standpoint, marriage may be viewed as a partnership that helps to coordinate and improve production and consumption activities and in turn, it implied better economic outcomes for families. Nevertheless, this union would be optimal for the couple until one or both partners discover that their utility expected from marriage falls below the utility expected from divorcing (Becker, 1974)¹. On the one hand, two separate studies arrive to the conclusion that an increase in female labour force participation leads to an increase in familial conflict, and eventually, an increase in divorce rates. (Spitze & South, 1986). Closely tied to this argument, a rise in women’s labour force participation is often perceived as responsible for increasing divorce rates (Becker, 1981). Along with this idea, theoretical theories on the efficiency of a division of labor in the household and the labor market are essential to take into consideration. If one partner specializes in market human capital (i.e the skills and experience that increase earning in the paid labor force) and its counterpart specializes in nonmarket human capital (i.e the skills and experience that helps in the house maintenance and in childbearing), both partners benefit from efficiency gains and leaving both parents better off (Becker, 1981) Indeed, role specialization is considered as a highly efficient strategy in which the wife exchanged her domestic services for the husband’s economic support and vice versa. The turning point is clearly that wives’ labour force participation *naturally* undermines specialization and consequently, the risk of divorce increases proportionally. In that event, investing in nonmarket activities, such as child rearing, becomes relatively less attractive than investing in human capital when marital instability is present.

¹ “A husband and wife would both consent to a divorce if, and only if, they both expected to be better off divorced” (Becker, 1981).

On the other hand, when marital disruption is viewed as a consequence of an unsatisfactory marriage in which gains from marriage are low, women will either enter into the labour market or adjust their working efforts prior to divorce. (Becker, 1985). Women will work more hours either in the years previous the divorce or in their divorce period compared to the hours if they were to stay married. Moreover, divorced women always worked more than their married counterparts at every age (Fernández & Wong, 2014), and for both education levels. The simplest argument for this explanation is not that the increased female labour market participation causes marriage to become unsatisfactory, but that such employment affords wives in unsatisfactory marriages an economically viable alternative to remaining married. This means that wife's employment increases her financial independence with the purpose of facilitating the subsequent divorce (Cherlin, 1979), (Ruggles, 1997), likewise increasing their self-esteem together with their social-psychological independence (Kessler & McRae, 1982). Similar hypothesis shows that women want to be able to financially support themselves after divorce (Johnson & Skinner, 1986); (Rogers & Amato, 1999). Hence, if women get divorce or expect to do so, the relation between women's participation in labour market and divorce becomes stronger. Taking the argument a step further, it is interesting to remark that across the years, the likelihood of marriages ending in divorce before their twentieth year are doubled for women than for men (Fernández & Wong, 2011) and in the same time frame, the labour-force participation of women notably has risen. Overall, the rise in women's labour force participation not only is affected positively by divorced women but also by married women with risk of divorce.

Regardless of what we have previously mentioned, the growth of women in the labour market goes in the opposite way from the increase in fertility and marriages (Becker, 1985). For instance, when the likelihood of divorce increases, an accelerated reduction in fertility is present due to the fact that childrearing is more complex after the subsequent divorce.

In most of the existing empirical studies, mothers are still being awarded exclusive physical and legal custody in generally up to 90% of the divorces in United States (Lemon, 1981) and many other Western countries (Francesconi & Muthoo, 2003). A strand of economic literature assumed that any child belonging to the ex-couple has to live with the mother and the ex-husband must make transfer payments to provide financial child-support (Fernández & Wong, 2011). Upon divorce, assets are splitted into the two spouses maximising their lifetime utility separately. It is crucial to know that splitting financial assets is one thing

completely different to determining child custody right, which is a complex issue for the parties directly involved (i.e mothers, fathers and children). Note that before marital dissolution, one of the main explanation for their marriages lies in the desire to have their own children (Becker, 1973) and raise them covering all their economic (i.e education and health care) and non-economic (i.e. recreational time and love) needs. Nevertheless, an overwhelming fact is that monetary transfers from ex- husbands are relatively scanty in most of the cases (Fernández & Wong, 2011). Only 60 percent of noncustodial fathers have a legal obligation to make this transfer and only half of those pay the full amount. In the light of this fact, evidence shows that about 20% (Del Boca & Flinn , 1995) of the father's income corresponds to a substantial child support and the rate of non-compliance is attributed to a nearly 37% and eventually, more than half of the mothers who live with their children potentially receive nothing (Garfinkel & Oellerich, 1989) .On top of this, recent studies suggests that fathers are able to pay over twice the amounts currently awarded in child support (Garfinkel & Oellerich, 1989) while they spend 50% more per capita on basic expenses than do women who receive child support. (Peterson, 1996) (Fletcher, 1989) Hence, this situation will leave mothers worse off than fathers after divorcing significantly exposing discrimination on how divorce may affect men and women. Not only do women significantly suffer from the brunt of divorce's financial burdens but also from a large drop in consumption depending on the education level of divorced women. Literature shows that the difference in consumption gains for men across several education levels is quite smaller than the gap between college and high-school women. On average, the economic consequences perceived by divorced women will be significantly greater than those for men who will perceived a decrease in household size (Peterson, 1996).

Overall, the widespread tendency of awarding the mother primary physical custody will lead to immediate dramatic causes such as the precipitous decline in the economic status of women following divorce and in the worst cases, it may cause a considerably increase of women's risk of poverty. Also, this will also adversely affect the participation of women in the labour market and their progress in careers which undoubtedly will depend upon ex-husband's willingness to share child-rearing responsibilities (Costa, 2000). In spite of the increasingly attempt of women combining career and family, they will still face a difficult task.

Therefore, understanding trends in custody arrangements is essential to understand policy changes that includes reforms to child support and child custody. In addition, changes in custody patterns is also related to the comprehension of changes in the division of labor and responsibility of children in line with the roles of parents in separate households. However, the implication of joint custody threatens the standard model of household behaviour, such as the unitary (Becker, 1981) and Nash bargaining models (McElroy & Horney, 1981); which assume household decisions to be Pareto efficient (Chiappori, 1988).

Perhaps because most of the growing body of research has been focused on the presumption of mother sole custody, little research has been conducted to address the allocation of joint custody, such a recent trend. To this end, our paper will contribute to the literature on female labour force participation rate studying how joint custody affects the participation of women in the Spanish labour market. In contrast to other contributions, we will consider the allocation of custody as an exogenous variable exercised by law as well as by the bargaining of the ex-family members. Child custody could be determining either while the parents are married, in other words, ex-ante or when they are already involved in the legal process of getting divorce, ex post. Although important research have been conducted to argue the optimal ex ante allocation of custody, for instance to provide the welfare analysis on the education between men and women and on female LF (Fernández & Wong, 2011), no study has yet considered the bargaining power of parents together with the child custody laws. As said, divorce laws plays an important role providing a framework in which divorcing parents are allowed to reach an agreement over the allocation of custodial rights by virtue of private negotiations (Mnookin & Kornhauser, 1979). To overcome this shortcoming, we will take into consideration both scenarios jointly to provide an accurate outlook of joint custody arrangements. Thereby, even more importantly, we will provide gender neutral basis to child custody allocation, thus allowing both parents to be better off than with having the only choice of sole custody, in particular, mothers.

3. BACKGROUND

In order to put into context, the subject matter that we are about to consider it is important to locate the beginnings of shared custody in space and time.

Since 1960s, states of United States started to abolish the explicit preference of favoring mothers in custody decisions and started to support joint custody over sole custody, which held that it is consistent with the prevailing legal principle of allocating custody in the best

interests of the child (Strous, 2007). It is plausible to argue that this change may be due to the legislative enactment of sex-neutral guidelines, what means that parent's gender will not be the basis for child-custody and both parents are considered to be the custodial parents of the child. As the rights of adults do not always coincide with the rights, welfare and best interests of children, special attention is drawn to an in-depth analysis both of legal changes being implemented recently and the relevant judicial practice. From legal stand point, sort of investigations are based on the implication of such legal principle behind customary custody rules. Related literature describes the implementation of such rule and how it affects the parties involved.

In contrast, Spanish society is in a process of profound change in family structures and law. Historically, the Spanish Civil Code of 1889 anticipated that in cases of separation and divorce, the allocation of custody would be determined by the age and gender of the child concerned. For instance, sons and daughters under the age of seven² always remained in the care of their mothers considering the maternal figures as the most suitable to cadre for the children, thereby promoting an outstanding gender discrimination among parents. At that time, the presumption mother sole custody after a divorce was already being questioned in the United States. Hereinafter, the Spanish Civil Code accepted the principle non-discrimination supported by the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)³.

But it was not until two decades for the reform of its first divorce law from 1981, the new law in 2005⁴ that introduced the notion of shared custody into the Spanish legal system for the first time (see Article 92 CC). For territories where the Spanish Civil Code is applicable, shared custody has always been reserved for exceptional circumstances. However, Judgement 200/2014 of the Spanish Supreme Court, Civil Section 1 of 25 April determined that shared custody should not be reserved for exceptional circumstances. It is important to emphasize a substantial change of the social context in this country along with the growing shift in attitudes regarding family roles questioning the role of women as the primary familial

² In the U.S the equivalent is termed the 'tender years doctrine'. See cases collected in Roth, *The Tender Years Presumption in Child Custody Disputes*, 15 J. FAM. L. 423, 432-34 n.38 (1976-77).

³ Article 16 of the CEDAW: "States Parties shall take all appropriate measures to eliminate discrimination against women in all matters relating to marriage and family relations and in particular shall ensure, on a basis of equality of men and women".

⁴ Law 15/2005, dated 8th July, modifying the Civil Code and the Civil Procedure Law on separation and divorce.

caretaker and home keeper. The drastically increase of women's participation in the labour market was due primarily to the effect of economic development and convergence with the European Union which required a rise female active population, particularly incorporating women into the workplace. Henceforward, 'shared child custody' was to be awarded when applied for by both parents in the stipulated manner.

In some Autonomous Communities in Spain, special laws have been enacted among the regulations of parental responsibility and child custody. Not only joint custody is the preferred option but also whenever separating or divorcing couples could not agree on custody matters joint custody was to the state's preferred default position whenever divorcing or separating. In any case, joint custody will be the default arrangement in several Autonomous Communities unless compelling circumstances are found to exist that justify a different arrangement.

In 2010, Aragon passed a law on making shared custody as the preferred option, hence being the pioneering Autonomous Community within shared custody arrangement (2/2010 Act, 26 May, Equality in family relationships before the breakdown of parental cohabitation; BOE n. 151, 22.6.2010; henceforth 2/2010 Act). The Aragon Parliament took a ground breaking step with the aforementioned law in the Spanish jurisdiction becoming more similar to those of Western cultures. In Valencia, the Law 5/2011 approved in the Valencian Parliament implemented shared custody as the default option in the absence of agreement between ex-spouses and awarding sole custody just in certain special cases.

Catalonia tend to follow suit by implementing a similar Act in 2010 requiring judges to award joint custody as the preferred option over awarding custody to just on one the parents where an agreement cannot be reached (BOE n. 203, 29.7.2010; henceforth 25/2010 Ac). Moreover, Catalonia added new family clauses to the civil code which include practical recommendations for judges and parents with the purpose of improving and facilitating communication to some extent between the former parents. A positive side-effect of this reform is to reduce the likelihood that children will lose contact with one or other parents, a common situation observed in the majority of sole custody cases. Likewise, the Autonomous Community of Navarre adopted the Law 3/2011 which provides a legal framework for shared parenting after divorce, notwithstanding, the judge is still the one who has the final say in this matter. By means of this Law the importance of joint custody is reinforced and it starts gaining ground over the norm of mothers taking exclusive responsibility.

In the Basque Country the Law 7/2015 govern in the allocation of custody following the mainstream of previous laws ruled by each Autonomous Government and it collects as a preferred and default model of joint custody which should be granted by the judges involved in marital divorce procedures. Overall, joint custody will be the default option unless this type of custody arrangement is not in line with the principle of best interest of children and then, the Law stipulates that the judicial authority should order custody to be exercised by only one parent.

Although Catalonia and Navarre regional laws do not state explicitly that shared custody is the default option of custody arrangement considering the mutual agreement between the parties and all related judicial decision should be in accordance with the emotional and economic welfare of both former parents and the children they have in common.

Children will be the direct beneficiaries of this type of arrangement and the child may serve as a common ground to the two divorced parents. Both parents will exercise parental responsibilities which confers sort of rights and obligations as feeding their children, spending some time with them and represent the child at any case and the coverage of every administering asset. What is more, joint physical legal custody will provide greater freedom to both parents to participate in the labour market because they will split up the roles easily and balanced parental responsibilities in the development and upbringing of children.

Far from the position of joint custody arrangement in U.S which possess the most developed jurisprudence in relation to this subject, shared custody has increasingly risen in status in Spain to the extent that it is now taking preference in a number of Autonomous Communities. Besides the importance of specific regional laws promoting shared custody, the most relevant explanatory factor with regard to joint custody is the existence of more egalitarian gender relation among couples in society, in particular, in distribution of productive and care work. Therefore, a dramatic decline is observed in the U.S of mother sole custody arrangements following divorce. Overall, they estimate an increasing tendency of shared custody as the most common post-divorce parenting arrangement over sole mother custody, accounting for more than fifty percent of all cases in the most recent cohort available. (Meyer, Cancian, & Cook, 2017).

4. DATA

We use two datasets. Firstly, we use information about the population with data extracted from the seventeenth official Census conducted in Spain by the Spanish Institute of Statistics (INE) that was held in 2011. It is the largest statistical project that comprises three different census: the Population Census, the Housing Census and the Building Census. Mainstream economic source for painting a coherent picture of the Spanish economic performance using recent economic data. All the information compiled there is gathered through questionnaires addressed to 3 million dwellings, especially in the 2011 Census, selected at random and distributed throughout the country. With regard to the Population Census, variables to be considered in the following study will be the ones related to basic demographics such as sex, age, province of birth, composition of households, education levels, employment situation and information related to migration and mobility. Given the data provided by the INE, we conduct a robustness analysis using an ideal data set composed of detailed variables that might affect the female participation rate in the labor market.

In that event, we have selected population aged between 18 and 66, within the cohort born from 1945 to 1993. As such, the sample likely contains divorced employed individuals with children and therefore, ex-couples who either had handled the allocation of child custody or those who are aware of the different child custody arrangements in the event of divorce. We used a sample of 2,437,792 individuals in which 1,217,216 are males and 1,220,576 females, designed to be representative at provincial and national level.

Secondly, the analysis is based on household-level information, complemented also by the primary source of Law, the Spanish Civil Code.

4.1. Variable measurement and definition

In choosing with variables to focus on, we started with a baseline study of the data gathered by earlier literature. For instance, taking into account the fact that the disutility of labor varies by marital status, education and children's age (Fernández & Wong, 2011).

4.1.1.Labor force participation

We have defined the dependent variable as the number of people who is actively employed, excluding individuals who are looking for work.

4.1.2.Laws favoring shared custody in Spain

At this point, it should not be overlooked the possibility of shared parenting as a default option of the allocation of custody after divorce. Within the Spanish territory, there are set of laws regulating divorce and custody. This variable is composed by the Law passed on the Valencian Community in which Castellon, Valencia and Alicante are involved; the Chartered Community of Navarre, the Aragonese Autonomous Community comprised by Saragossa, Huesca and Teruel; the Basque Country includes Alava, Biscay, Guipuzkoa and Catalonia consisted of four provinces: Barcelona, Girona, Lleida and Tarragona.

Most of the papers do not study the inherent impact of shared custody in the participation of divorced women in the labour force that we expected to be positive.

4.1.3.Level of education

This indicator is essential for understanding the important difference in the participation rates of population among different educational groups. According to the theory of human capital (Becker, 1964) , education is an investment, producing knowledge acquisition and increased productivity. In a similar vein of discussion, the education system plays the role of a filter allowing individuals to signal their abilities and positioning themselves in the labor market (Spence, 1973). Henceforth, we will consider four levels of education depicted in [table 1](#).

Table 1. International Standard classification of Education and proportions of Spanish population.

Levels of education	Variable Definition	% Total	% Male	% Female
None or early childhood education	Less than primary' for educational attainment	16,84%	51,00%	49,00%

Primary education	General Certificate of Secondary Education (GCSE)	32,50%	52,48%	47,52%
Secondary education	Vocational Education and Training (VET) and Certificate of Higher Education (HNC)	29,71%	51,69%	48,31%
Tertiary education	Bachelor's degree, Diploma of Higher Education (DipHE), Engineer's Degree – Engineer Diploma (DI), Master's Degree or Graduate Certificate (PGCert) and Doctorate (PhD).	20,95%	42,63%	57,37%

Source: variable definition based on the International Standard Classification of Education (ISCED). Data gathered by 2011 Census, the Spanish National Statistics (INE).

Note: Total number of observations used for the descriptive analysis is 2,437,792.

4.1.4. Marital Status

Special attention should be drawn to the marital status variable in which we consider married, single or people who report “never married” in the questionnaire conducted by INE, widowed and divorced people in which we consider those who report their marital status to be either “divorced” or “separated”. Despite taking into consideration all sorts of marital status for obtaining more precise results of research, divorced women play a main role in this paper for several reasons. First, this target group will be the one affected by current and upcoming laws favoring shared custody. Second, a large stream of literature supports the larger participation of divorced women in the labor market.

4.1.5. Time allocation

To measure the extent to which changes in time allocation have accounted for growth in labor force participation rate of individuals, in particular, women, we will make a decomposition of non-working time spent on (i) *childrearing*, (ii) *household chores*, (iii) *caring people with health-related problems*, (iv) *volunteering and social tasks*.

Furthermore, this measure opens up the possibility of studying potential gender differences in time allocation among all individuals instead of restricting the analysis with married women. Historically, such gender gaps were accompanied by an intrinsically gender role discrimination assuming that male and female time are perfect substitutes of home production (Becker, 1965) and overlooking the divorce factor.

4.1.5.1.1. *Childrearing*

Woman's life from previous generations has changed over the years, in such a way, decreasing their time most often devoted to child rearing. This variable will give us unique predictions about potential changes in the household distribution. However, this variable will just cover children under 15 years old as stated in the Census dataset.

4.1.5.1.2. *Household chores ("domestic burden")*

Another relevant variable is the extent to which domestic chores are distributed among family members in order to test whether gender gaps are still present among the studied cohort. The entry of women into the labor market will interfere with the involvement of men in housework. Women will have less time to perform household chores and it is, therefore, necessary to have an equitable division of domestic work between women and men.

4.1.5.1.3. *Caring people with health-related problems*

With regard to providing care to individuals with health problems, we are referring to elderly and people with a functional limitation, for instance vision loss, mobility difficulty, or intellectual disability. Overall, this concept included all people related to physical, mental, emotional, and social functioning problems that will have somehow or other an impact on the person's quality of life. This factor will contribute to the determination of women's decisions to participate in the labor market.

4.1.5.1.4. *Volunteering*

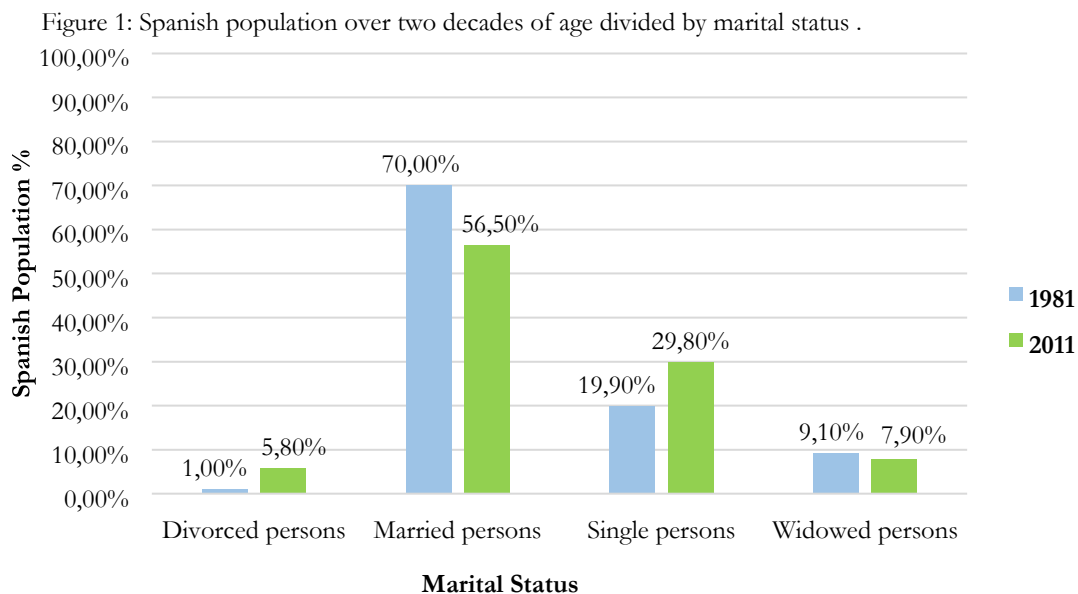
Volunteer work for community services and responsibilities attached to charity organizations also require some time donation. Hence, this will contribute to the way in which individuals will decide to allocate their time on.

4.2. Descriptive Analysis

Women had different education trajectory than her male counterpart. First of all, individuals with none or early childhood education (16,48%) has lessened on the share of population. We also find that 30,85% of female reached Primary Education compared to 34,15% out of male population, followed by 28,67% women who completed High School studies as to

30,76% of men did.. Interestingly, 24% of female population went to college surpassing men in college trends, remarking the fact tertiary education is the highest level of education an individual will target. This empirical data is compatible with our literature analysis, supporting the phenomena of women's reversing of the education gender gap and increasing women's incentive to obtain higher education.

More than half of the adult Spanish population is married (58,4%), single people represent the second largest category (29,8 %) followed by widowed (7,9%) and divorced (5,8 %). An overall image provided by the data gathered at INE of which we should point out the divorce gender gap among individuals and marriage inconsistently. Although marriage prevail over the different categories of civil status, divorces have spread to almost all the country. Surprisingly, there is lower percentage of men either married (51,04%) or divorced (4,70%) compared to women, respectively (58,40% and 6,35%). Compared to data of the 1981 census illustrated in [figure 1](#), a sharp change in the traditional way of household. A significantly rise by 9,9% of single persons together with a greatly increase of 4,8% in divorced persons. Meanwhile, a drop in married population from 70, 0% to 56, 5% and slightly decrease of 1.2% of widowed persons.



Source: Eurostat and Census 2011, the Spanish National Statistics (INE). *Note:* In the single status, individuals never married or in a registered partnership are also included. Also, divorced and separated individuals are under the same term of divorced persons.

Nonetheless, same figures are set for women doing housework (34,83%) and for men without having that responsibility (36,51%) over the whole Spanish population. [Figure 2](#)

shows further examination by provincial level needed in order to have a more accurate overall picture of Spain. For instance, in Jaen, Ciudad Real, Cordoba, Ceuta, Seville, Badajoz, Jaen, Albacete, Cuenca, Toledo, Cadiz, Malaga, Granada, Almeria almost 80% of women is engaged in household activities compared to 20% of men. In contrast to other provinces as La Rioja, Asturias, Biscay, Navarre, Guipuzkoa, Burgos, Alava and Soria in which nearly 70% of female distribution of household chores against 30% of men's distribution. Certainly, this analysis enables us to instantly discern possible gap discrimination of engagement of household duties among the North and South of Spain based on the data extracted from 2011 Spanish Census. While further research is needed, the central point is that strictly speaking, 72% of women do more household chores than men, with only 28% men doing an equal amount of housework.

Yet, the allocation and completion of chores appear not to be the only variable where gender discrimination is present. The pattern of volunteering⁵ may still be quite different between men and women. The predominant providers of informal care for individuals in the majority of cases, family members with chronic medical conditions or disabilities, including the elderly and adults with mental illness are women. In Spain, more than half (60%) of women provide care whilst 40% of men carried out less care burden.

Notwithstanding the role of women in running the household and their high participation in non-economic activities, less gendered pattern of volunteer work in today's Spanish society is exhibited in the bar chart. We can observe similar patterns of gender among different provinces of Spain. Melilla, Soria, Guadalajara, Ceuta, Burgos, Asturias and Palencia were the only one in which their percentage of female engagement in charity tasks is five point less than 50% compared to men. On average, 54% of volunteers in charity time spending are female whereas 46% are male. Fortunately, this sort of time allocation pushes us to look more closely at gender equality holistically in Spain.

Going further in this direction, [figure 3](#) illustrates the percentage of being employed in Spain are larger for men reaching more than a half (55%) of the employed population whereas less than a half (45%) covers the female employed population. We can immediately observe that 30 out of 52 provinces have between 57% to 60% male employed population compared to

⁵ "Volunteer activities take place in settings that have different degrees of structure and formality. To illustrate: volunteer activities range from a neighbour helping a neighbour, to a group of parents organizing to clean a playground, to a formal volunteer group". (Jusenius , 1986)

women employed. Going beyond employment percentages, women only accounts for the 40% of all full-time employment while almost 60% of full-time jobs are assigned to men.

Therefore, it is clear-cut that part time female jobs plays an important role among the different workings schedules. More than 40 provinces in Spain tend to have a percentage greater than 70% of female in employment working less than thirty hours per week whilst just 21 provinces cover nearly 45% of full time jobs in which women are working in.

However, in a challenging global contest for equality, a deep analyses provided in [figure 4](#) reveals that men take care less of children under 15 in 41% over the population who develop this task compared to 59% of women providing care to a child under 15. Jaen, Albacete, Huelva, Badajoz, Murcia, Ciudad Real are having the lowest percentage of men raising children under 15 years old. Likewise, those provinces also present the smallest percentage of male domestic burden⁶.

5. METHODS

The paper is purely quasi-experimental of shared custody in Spain with a transparent exogenous source of variation in the explanatory variables that determine the treatment assignment. In preparing the present analysis, we have drawn on the vast literature surrounding the allocation of custody and also the knowledge on the participation of divorced women who is affected by the previous arrangement in Spain. This country is a competent case study because of its asymmetrical devolution of the territorial structure, some communities have particular traits, financial regime and special civil rights expresses in a code results in a perfect framework the remained question: how does shared custody affect the participation of female in the labour market?

In this regard, legislation and institutional support may expect to have some influence in the participation of women in the labour market. As divorced women tend to participate more in the labour market agreed with findings of the earlier literature, child-custody laws should contribute to a considerable increase in the number of female participating in the labor market. Because the burden of childrearing aforementioned should be divided into both parents and thus, the allocation of time as to taking care of children would be equally distributed. However, the lack of evidence on how these laws will result in an increase or a

⁶ See [Figure 2](#).

reduction in the participation of women in the labor market make us to give special attention and examine it for the Spanish case. Therefore, the current analysis is complemented by proper information about laws from the Spanish Civil Code in force in Spain approved by Royal Decree of July 24, 1889. It covers any legal rules, their application and effectiveness. Therefore, the main legal provision of the civil law Book First is concerned with the “Law of Persons in which is exposed the legal definition of a Spanish citizen, the statute of foreigners, the civil status and the distinction between natural persons and legal entities. Among former outlined topics, the most important chapters of the First Book are those relating to marriage and its incidents. Especially interesting for the paper are the requirements for concluding a marriage in Spain: the legal effects of the dissolution of marriage, the paternity and filiations, the support between relatives, issues related to guardianship and the more crucial is the legal custody. Given the data provided by the First Book of the Spanish Civil Code, we are able to compare Spanish provinces governed by a law that safeguards shared custody over the other custody arrangements. [Table 2](#) summarizes the child-custodylaw coding we will use to examine whether the prospect of joint custody affects the likelihood of women participating in the labor market.

Table 2. Regional Laws favoring joint legal and physical custody in Spain.

Autonomous Community/Provinces	Law
ARAGON Huesca Teruel Saragossa	the Law 2/2010
CATALONIA Barcelona Girona Lleida Tarragona	the Law 25/2010
VALENCIAN COMMUNITY Alicante Castellon Valencia	the Law 5/2011
NAVARRRE Navarre	the Law 3/2011

BASQUE COUNTRY Alava Biscay Gipuzkoa	the Law 7/2015
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Source: own elaboration with data extracted from the Official State Gazette (BOE).

Note: the rest of Autonomous Communities of Spain will be applied Law 15/2005, dated 8th July, specifically, the Article 92 of the Spanish Civil Code in terms of separation and divorce.

5.1. Identification strategy

The choice of the empirical model rests on the nature of our dependent variable, which we have defined as the number of people who is actively employed, excluding individuals who are looking for work. We examine the impact of share custody on female labor participation in a differences-in-differences (DD) framework. Provinces that signed a shared custody would be the treated as Autonomous Communities, and the rest would be the counterfactual group. We estimate the following equation will serve as a baseline for future interactions:

(1)

$$\begin{aligned}
LFP_{ij} = & \alpha + \delta_0 female + \delta_1 LawAragon + \delta_2 LawNavarre + \delta_3 LawBasqueCountry \\
& + \delta_4 LawCatalonia + \delta_5 LawValencianCommunity + \\
& \beta_1 LawAragon_j * female_{ij} + \beta_2 LawNavarre_j * female_{ij} + \\
& \beta_3 LawBasqueCountry_j * female_{ij} + \beta_4 LawCatalonia_j * female_{ij} + \\
& \beta_5 LawValencianCommunity_j * female_{ij} + XB_{ij} + \varepsilon_{ij}
\end{aligned}$$

Let LFP_{ij} be the labor force participation of individual i in province j , where X is the vector of individual characteristics, including geographical fixed effects, and ε_{ij} is the idiosyncratic characteristics of i , normally distributed in the society. Parameters $\beta_1, \beta_2, \dots, \beta_N$ aim to capture the LFP of females (relative to male participation) in Autonomous Communities which have shared custody related compared with their experience in communities without any law favoring shared custody. Thus, this set of parameters capture the impact of the shared custody law.

In a parallel analysis, we would examine the labor supply of divorced females with differences in time allocation. To this end, we estimate a triple difference equation, displayed below:

(2)

$$\begin{aligned}
LFP_{ij} = & \alpha' + \delta'_0 female_{ij} + \delta'_1 Household\ Chores_{ij} + \delta'_2 Child \\
& rearing_{ij} + \delta'_3 Care\ Work_{ij} + \delta'_4 Volunteering_{ij} + \\
& \delta'_5 Household\ Chores_{ij} * female_{ij} + \delta'_6 Child\ rearing_{ij} * \\
& female_{ij} + \delta'_7 Care\ Work_{ij} * female_{ij} + \delta'_8 Volunteering_{ij} * \\
& female_{ij} + \tau_0 divorced + \tau_1 Household\ Chores_{ij} * divorced \\
& + \tau_2 Child\ rearing_{ij} * divorced + \tau_3 Care\ Work_{ij} * divorced \\
& + \tau_4 Volunteering_{ij} * divorced + \gamma_1 Household\ Chores_{ij} * \\
& female_{ij} * divorced + \gamma_2 Child\ rearing_{ij} * female_{ij} * \\
& divorced + \gamma_3 Care\ Work_{ij} * female_{ij} * divorced + \gamma_4 \\
& Volunteering_{ij} * female_{ij} * divorced + XB'_{ij} + \varepsilon'_{ij}
\end{aligned}$$

where X is the vector of individual characteristics, including geographical fixed effects and all double interactions, and ε'_{ij} is the idiosyncratic characteristics of i, normally distributed in the society.

6. RESULTS

In this section we turn to examine the validity and quantitative importance of each of these variables on the participation of individuals in the labor market. Specifically, we have come across interesting research applying Ordinary Least Squares (OLS) method. The main results of our empirical study are presented in [table 4](#). However, it is essential to give priority attention to [table 3](#) which presents the estimates from Eq. (1) for the full sample of Spanish population aged 18 to 66.

Models 1 and 2 show the marginal impact of the regressor on the dependent variable, in this case, the labor force participation. In Model 1, the level of education and the provinces are controlled without adding the marital status as a regressor that will be studied on Model 2. In Model 1, female population has a negative effect on the probability of participation in the labor market and being at the same time statistically significant at the one-percent level. Moreover, the three levels of education stated in the table are statistically significant at the one-percent level as well, indicating that for every additional level of education achieved we will expect to increase the participation of labor force rate. In particular, if the individual has completed either a Bachelor's Degree or Diploma of Higher Education (*see table 1*), the

number of employed people in the Spanish Labor market will increase by 40.6% compared to individuals with no education.

Table 3. Labour status determinants in Spain (summary).

Regressors	Model 1	Model 2
<i>Gender:</i>		
Female	-0.117*** [0.002]	-0.124*** [0.002]
<i>Level of education:</i>		
Primary education	0.153*** [0.003]	0.154*** [0.002]
Secondary education	0.234*** [0.007]	0.252*** [0.005]
Tertiary education	0.406*** [0.004]	0.422*** [0.004]
<i>Marital Status:</i>		
Married		0.141*** [0.007]
Divorced		0.132*** [0.007]
Widowed		-0.032*** [0.008]
Constant	0.474*** [0.018]	0.383*** [0.017]
Sample Size	2382721.000	2382721.000
r ²	0.095	0.115

Notes: In this table, the dependent variable is the economically active population. The sample is taken by the 2011 Spanish Census provided by the (Instituto Nacional de Estadística (INE), 2018) aged 18-66. Estimates are reports as marginal effects. Standard errors for marginal effects are in parentheses and statistical significance is indicated by * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. For an extended version, see table 3 in the [appendix](#).

In regard with the province variable, nineteen out of fifty one provinces of Spain become statistically significant at one-percent level, followed by seven at five-percent level and three

at ten-percent level in Model 1. These estimated effects attend to the probability of each province on the participation of labor force in comparison to Alava, which was the only province out of control chosen randomly. Stressing the negative effect of outlined provinces on the LFP of Alava.

Doubtless the estimates presented for Model 2 with the insertion of marital status as a controlled variable shows similar results to Model 1. We can conclude that our results are robust to the control for marital status.

For married individuals, the probability of participating in the labor forces raises by 14% compared to single individuals. Having divorced women a slightly lower probability (1% less than married people) of working but still statistically significant at one percent level. On the contrary, if widowed population increases by one percent, single working population will decrease by 3.2%, becoming statistically significant at one percent level. Therefore, including marital status is a variable meaningful enough to warrant more accurate predictions.

In what follows, we examine our main results. In [table 4](#) we make a deeper analysis to study the effect of diverse Spanish Laws favoring shared custody over the sole custody arrangement and taking Eq. (1) for estimating. To this end, we would focus on the effect of being female in those provinces that has a supporting law for shared custody. The results from this analysis provide support to the idea that females in Catalonia, Valencian Community and Basque country (relative to this same difference for males) are more likely to be employed being correlated with the approval of laws favoring shared custody.

Additionally, our results are statistically significant at one percent level.

Table 4. The effect of joint-custody laws on the labour force of Spain.

Regressors	Model 3	Model 4	Model 5	Model 6
<i>Gender:</i>				
1. Female	-0.113*** [0.003]	-0.104*** [0.003]	-0.102*** [0.003]	-0.084*** [0.003]
<i>Laws favoring shared custody:</i>				
Law of Aragon	0.083*** [0.019]	0.084*** [0.018]	0.084*** [0.018]	0.084*** [0.019]
Law of Aragon #Female	0.002 [0.007]	0.002 [0.007]	0.002 [0.007]	0.002 [0.007]

Law of Navarre	0.092*** [0.025]	0.090*** [0.024]	0.091*** [0.024]	0.091*** [0.025]
Law of Navarre #Female	0.011 [0.010]	0.013 [0.010]	0.013 [0.010]	0.013 [0.010]
Law of Basque_country	0.066*** [0.017]	0.064*** [0.016]	0.064*** [0.016]	0.065*** [0.016]
Law of Basque_country#female	0.023*** [0.006]	0.026*** [0.006]	0.025*** [0.006]	0.025*** [0.006]
Law of Catalonia	0.062*** [0.017]	0.061*** [0.016]	0.061*** [0.016]	0.061*** [0.016]
Law of Catalonia#female	0.042*** [0.006]	0.044*** [0.006]	0.043*** [0.006]	0.042*** [0.006]
Law of Valencian_community	-0.010 [0.015]	-0.011 [0.015]	-0.011 [0.015]	-0.010 [0.015]
Law of Valencian_community#Female	0.018*** [0.006]	0.018*** [0.006]	0.018*** [0.006]	0.017*** [0.006]
<i>Time allocation:</i>				
Care_childunder15		0.120*** [0.003]	0.123*** [0.003]	0.124*** [0.003]
Care_childunder15#Female		-0.074*** [0.002]	-0.074*** [0.002]	-0.079*** [0.003]
Care elderly /health problems			-0.046*** [0.003]	-0.044*** [0.003]
Care elderly /health problems #Female			0.006* [0.003]	0.002 [0.003]
Domestic burden				0.017*** [0.004]
Domestic burden # Female				-0.032*** [0.005]
Constant	0.612*** [0.007]	0.590*** [0.007]	0.593*** [0.007]	0.580*** [0.006]
	2382721.0			

Sample Size	00	2382721.000	2382721.000	2382721.000
r2	0.016	0.022	0.022	0.022

Notes: In this table, the dependent variable is the economically active population. The sample is taken by the 2011 Spanish Census provided by the (Instituto Nacional de Estadística (INE), 2018) and taken female divorced population aged 18-66. Standard errors are in parentheses and statistical significance is indicated by * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The case of Navarra and Zaragoza, although not statistically significant, also provide support for the same relationship. Our results are robust to additional control variables as shown in what follows.

However, as an additional robustness check, we have examined whether our findings are influenced by new controlled variables related to time allocation. In Models 4, 5 and 6, we include the explained variables of childrearing of under 15 age, providing care to either elderly or people with health problems and domestic burden. The former has a negative impact in the participation of women in the labor market: the increase of women who have to rear children under 15 will decrease employed individuals by 7,4%. However, not being statistically significant. What is more, this results remain highly statistically significant in Models 4,5 and 6. Likewise, the latter new variable affects negatively on the participation of individuals in the labor market and it becomes statistically significant at one percent level in Model 6. The inclusion of these variables allow us to conclude that our results remain intact, including the level of significance. By examining the figures, women with children aged under fifteen years old have a lower probability of increasing the number of people being economically active.

Table 5. The effect of different time allocation for divorced female Spanish Population on the labour force.

Regressors	Model 7	Model 8	Model 9	Model 10
Female	-0.121*** [0.002]	-0.121*** [0.002]	-0.130*** [0.003]	-0.130*** [0.003]
Divorced#Female	0.125*** [0.004]	0.123*** [0.005]	0.117*** [0.007]	0.118*** [0.007]
Care_childunder15	0.060*** [0.002]	0.062*** [0.002]	0.065*** [0.002]	0.066*** [0.002]
.Divorced#Care_childunder15	0.011* [0.006]	0.015** [0.006]	0.013** [0.006]	0.014** [0.006]

Female#Care_childunder15	-0.056*** [0.002]	-0.057*** [0.002]	-0.061*** [0.002]	-0.061*** [0.002]
Divorced# Female #Care_childunder15	-0.016** [0.008]	-0.020** [0.008]	-0.018** [0.008]	-0.018** [0.008]
Care_elderlyhealth		-0.051*** [0.003]	-0.048*** [0.003]	-0.045*** [0.003]
Divorced#Care_elderlyhealth		-0.049*** [0.009]	-0.050*** [0.009]	-0.048*** [0.009]
Female#Care_elderlyhealth		0.018***	0.015***	0.015***
		[0.003]	[0.003]	[0.003]
Divorced#Female#Care_elderlyhealth		0.040*** [0.011]	0.041*** [0.011]	0.041*** [0.011]
Domestic burden			-0.027*** [0.003]	-0.027*** [0.003]
Divorced# Domestic burden			0.011* [0.006]	0.011* [0.006]
Female# Domestic burden			0.031*** [0.002]	0.030*** [0.002]
Divorced#Female# Domestic burden			-0.006 [0.008]	-0.007 [0.008]
Care_volunteering				-0.071*** [0.003]
Divorced# Care_volunteering				-0.011 [0.013]
Female# Care_volunteering				0.015*** [0.004]
Divorced#Female#Care_volunteering				-0.018 [0.017]
Constant	0.382***	0.385*** [0.016]	0.392*** [0.017]	0.394*** [0.017]
Sample Size	2.382.721.000	82.721.000	2.382.721.000	2.382.721.000
r2	0.117	0.117	0.118	0.118

Notes: In this table, the dependent variable is the economically active population. The sample is taken by the 2011 Spanish Census provided by the (Instituto Nacional de Estadística (INE), 2018) and taken female

divorced population aged 18-66. Standard errors are in parentheses and statistical significance is indicated by * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. For an extended version, see table 5 in the [appendix](#).

Additionally, in a parallel analysis we are going to explore the plausible effect of being a divorced female and time allocation on labor participation using Eq. (2). Thus, in [table 5](#) we have repeated the analysis conducted in [table 3](#) for the same sample adding the study of potential outcomes by means of a triple interaction: marital status-divorced population, gender-female and time allocation-all possible scenarios. For each model, we successively add controls to gauge how sensitive the estimated effect of time allocation within divorced women. Along all the models presented in [table 5](#), we can observe that the negative effect of divorced women devoting their time to raise children aged under 15 on the labor market. Overall, the probability of working drops by 1.8 percentage points in divorced women with the responsibility of full-time childrearing of children under 15 years old. The former interaction exhibits a statistical significance of five percentage level. Unexpectedly, divorced women who care elderly or people with health problems increase the probability of participating in the labor market by 4,1% and this variable is statistically significant at onepercent level in Model 8, 9 and 10. Further research should be performed to get a better understanding of this phenomenon.

7. DISCUSSION AND CONCLUDING REMARKS

Although the studied model does not support the restriction imposed by the unitary model of household behavior (Becker, 1981), it does support the predictions of a future forthcoming model along with the current goal of reducing gender inequality proceed from international organizations.⁷ The statistically significant, negative effect of female participation on the labor market becomes softer in the case of an introduction of laws favoring shared custody (see [table 4](#)). Our results are in line with these findings: a positive correlation between being an employed women with the provinces that comprises Catalonia,

⁷ In September 2000, after a decade of major United Nations conferences, leaders of 189 countries, gathered at the United Nations Headquarters in New York, signed the historical Millennium Declaration, in which they promised to achieve a set of eight measurable goals that range from reducing extreme poverty and hunger to promoting gender equality, by the target date of 2015. Afterwards, the United Nations conference on sustainable Development held in Rio de Janeiro in 2012 where they develop a new set of Sustainable Development Goals (SDGs). Especially emphasizing the importance of the SDG 5: achieve gender equality and empower all women and girls.

the Basque Country and Valencian Community regulated under provincial jurisdiction. By doing so, gender norms and stereotypes will not reinforce gendered identities, in particular, the legal world, and constrain the behavior of women and men in ways that lead to inequality (Ridgeway, 2011).

There is no doubt that labor market statistics for most provinces of Spain show a diminishing gender gap in the main factors that affect labor force participation. As such, educational gap is almost reduced with an increasing enrollment of young women in secondary and tertiary education. The extent to which tertiary education affects the labor market is reflected in our model. Nonetheless, it is difficult to discern if rising educational attainment causes increased labor force participation. Nonetheless, education is used as a signal in the model for allocating the right people in the right job, in other words, improving the quality of the sorting accomplished. (Spence, 1973). What is more, the education level is an entrance requirement for the high salary job, in most cases, is full –time jobs where you achieved it.

Bearing this in mind, we should ask ourselves how is it possible that Spanish women who exhibit a higher educational level (55,8% of women within tertiary education level) than men, have a higher unemployment rate and, besides, represent a 72% of part-time jobs?

Surprisingly, 31 Spanish provinces have more than 60% of male full time employments and in 36 provinces men are working in part-time employments. Needless to say, the share of part-time and full-time jobs among the population have been always clearly gender based. An interesting query is whether the current situation of part-time work is likely to be an intermediate step towards the full-time job position. We will encounter different viewpoints about the efficiency implications of such a large proportion of women working part-time. The positive view is that the existence of part-time jobs boost substantially the female labor force participation rate since women confronted with the choice between a full-time job and zero working hours would opt for the latter. (Booth & van Ours, 2013) The negative view is that part-times can be seen as these employees offered low-cost overtime, were easier to cover when absent and, in part time workplaces is featured as a vulnerable and flexible workforce (Booth & van Ours, 2013). In short, part-time jobs imply wastage of resources and underutilization of investments in human capital, since many part-time working women are highly educated” (Booth & van Ours, 2013). Lack of progress in employment represents lost economic opportunity, because women’s potential as labor force participants is not being put to its best possible use and in such a way, women’s accumulated education and career advancement will not benefit society as a whole.

A sophisticated suggestion to the above assertion might be that, in the context of our analysis, the introduction of laws favoring joint custody will encourage full time job positions occupied by women because they will be able to devote a higher proportion of time to the labor market. Further, labor force participation and the allocation of time among the development of day-to-day responsibilities are competing for the scarce time of individuals.

Consistent with a number of studies where they have suggested that time spent of caregiving differs among men and women concluding that women devote greater time to caregiving for elderly, compared to men (Corcoran, 1992) (Montgomery & Kamo, 1989). Women appear to experience greater interference and limitations in their work and social life because of their role as caregivers. Because female caregivers often have to play several roles such as mothers, daughters, employees (Corcoran, 1992) at the same time and thus, the likelihood of greater role-strain and burden due to the more intense care they provide tend to be extremely high. (Almada, 2001). Consequently, female caregivers report that their roles interfered with their work and social life to a greater extent than men (Sharma, Chakrabarti, & Grover, 2016).

Despite the changing gender traditional roles⁸ and the rapid entry of women into the labor force over the past several decades, women continue to take the main responsibility of running the household and giving care to family members (Hochschild, 1989) which may, in turn, limit their career opportunities and restrict their abilities to participate in the paid labour force. Our model is in line with this literature, concluding that high domestic burden together with a great commitment with the provision of care to elderly or individuals with health problems have a negative effect on the probability of being employed.

Further consideration of how marital status and time allocation, in special of divorced women, alter labour force participation has been taken in this paper. Our outcomes show the existence of a negative strong interaction between time allocation (providing care to children under 15 and to elderly or people with health problems) and being economically active. While divorced rate is rising at a fast rate in Spain, traditional gender norms have shown noteworthy tenacity, leaving women in a worse-off in respect to time allocation before and after divorce. This situation might appreciably reduce when legal reforms of custody arrangements will be implemented with the main purpose of promoting the rights to freedom and equality distribution of responsibilities towards children. As a result, parents may favor self-regulation and shared custody in the best interest of the child. Under these

⁸ By “gender traditional roles”, we are referring to the popular mindset of “husband should be the breadwinner and the wife would be the homemaker” (Costa, 2000).

circumstances, the court should not assume mother sole custody as the preferred option towards Spanish cases of allocation of custody. Overall, shared custody allocation will encourage the demand of men for a greater role in child rearing, a right which has traditionally been the exclusive domain of women. Thus, we should bear in mind one of the quotes noted in the consultation on the Post -2015 Development Agenda:

“Gender equality is not about transferring opportunities from men to women, but about realizing the rights of everyone, and creating conditions where both all have the right and ability to realize their full human potential” (UNICEF and UN Women, 2013:35).

Hence, with this study we hope to encourage future consideration in divorce research of custody allocation. It would be interesting to investigate quantitatively the anticipatory behaviour of women in advent of divorce taking into consideration custody arrangement, having the possibility of choosing between sole or shared custody. At a theoretical level, it would also be interesting to explore further the potential cases of shared custody in Spain over time and their participation in the labour market in order to make a more accurate prediction. At the empirical level, it is important to depart from focusing exclusively on aggregate features of the data over a very long time horizon.

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9. APPENDIX

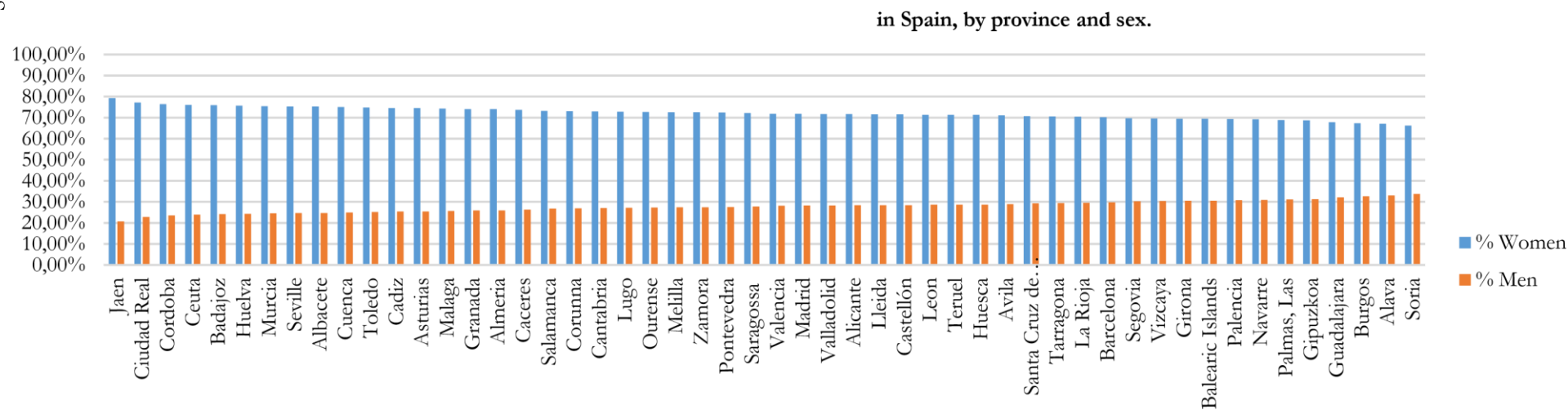
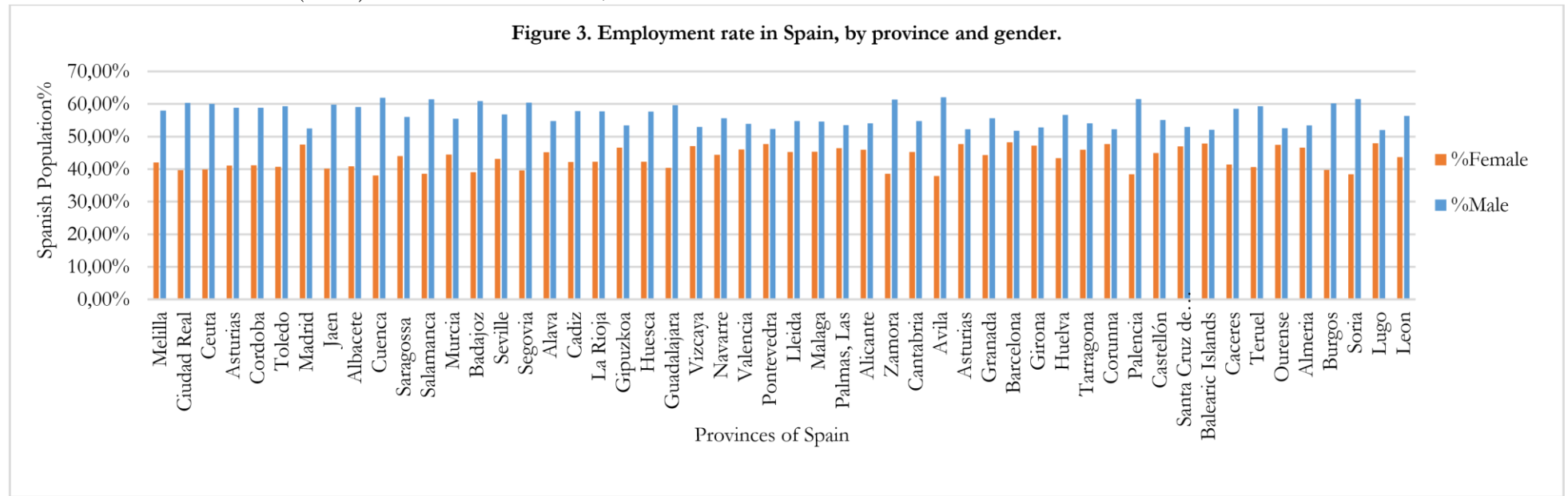


Figure 2. Individuals engaged in household activities

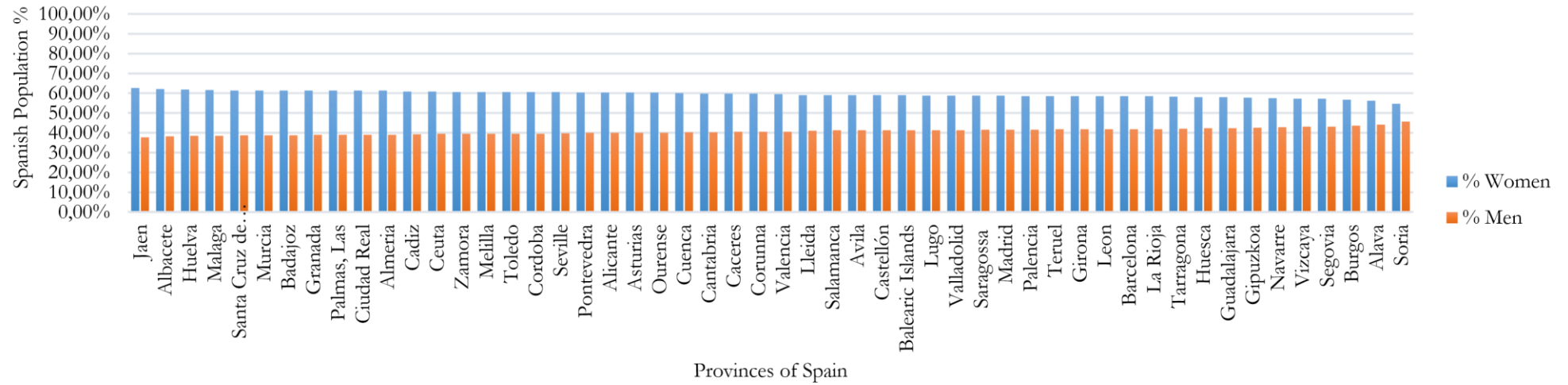
Provinces of Spain

Source: own elaboration with data (ranked) extracted from 2011 Census, INE.



Source: own elaboration with data (ranked) extracted from 2011 Census, INE.

Figure 4. Individuals providing care to children aged under 15, by province and sex.



Source: own elaboration with data (ranked) extracted from 2011 Census, INE.

Table 3. Labour status determinants in Spain (extended version).

Regressors	Weighted sample	
	Model 1	Model 2
<i>Gender:</i>		
Female	-0.117*** [0.002]	-0.124*** [0.002]
<i>Level of education:</i>		
Primary education	0.153*** [0.003]	0.154*** [0.002]
Secondary education	0.234*** [0.007]	0.252*** [0.005]
Tertiary education	0.406*** [0.004]	0.422*** [0.004]
<i>Provinces:</i>		
Albacete	-0.068*** [0.026]	-0.068*** [0.023]
Alicante	-0.080*** [0.024]	-0.081*** [0.021]
Almeria	-0.049** [0.024]	-0.049** [0.021]
Avila	-0.049* [0.026]	-0.046* [0.024]
Badajoz	-0.110*** [0.025]	-0.112*** [0.022]
Balearic Islands	-0.036 [0.024]	-0.031 [0.022]
Barcelona	-0.003 [0.024]	-0.004 [0.022]
Burgos	-0.012 [0.026]	-0.010 [0.024]
Caceres	-0.088*** [0.025]	-0.087*** [0.022]
Cadiz	-0.165***	-0.165***

	[0.024]	[0.021]
Castellón	-0.035 [0.025]	-0.039* [0.022]
Ciudad Real	-0.085*** [0.026]	-0.088*** [0.023]
Cordoba	-0.106*** [0.025]	-0.110*** [0.022]
Corunna	-0.046* [0.025]	-0.045* [0.023]

Cuenca	-0.038 [0.026]	-0.037 [0.023]
Girona	0.031 [0.024]	0.031 [0.022]
Granada	-0.145*** [0.025]	-0.145*** [0.022]
Guadalajara	-0.004 [0.023]	-0.006 [0.021]
Gipuzkoa	-0.003 [0.027]	-0.004 [0.025]
Huelva	-0.132*** [0.024]	-0.133*** [0.022]
Huesca	0.007 [0.025]	0.007 [0.023]
Jaen	-0.125*** [0.026]	-0.130*** [0.022]
Leon	-0.060** [0.025]	-0.057** [0.023]
Lleida	0.033 [0.025]	0.031 [0.022]
La Rioja	0.007 [0.025]	0.006 [0.023]
Lugo	-0.001 [0.027]	0.001 [0.024]
Madrid	-0.011 [0.024]	-0.009 [0.022]
Malaga	-0.105*** [0.023]	-0.103*** [0.021]
Murcia	-0.065** [0.025]	-0.067*** [0.022]
Navarre	0.003 [0.027]	0.002 [0.025]
Ourense	-0.052*	-0.053**

	[0.026]	[0.024]
Asturias	-0.087*** [0.026]	-0.089*** [0.025]
Palencia	-0.031 [0.026]	-0.027 [0.024]
Palmas, Las	-0.082*** [0.025]	-0.070*** [0.022]
Pontevedra	-0.067*** [0.025]	-0.066*** [0.023]

Salamanca	-0.055** [0.026]	-0.054** [0.023]
Santa Cruz de Tenerife	-0.094*** [0.026]	-0.085*** [0.023]
Cantabria	-0.054** [0.026]	-0.054** [0.024]
Segovia	-0.004 [0.027]	-0.001 [0.024]
Seville	-0.120*** [0.024]	-0.122*** [0.021]
Soria	0.028 [0.030]	0.036 [0.027]
Tarragona	-0.018 [0.023]	-0.022 [0.021]
Teruel	0.003 [0.026]	0.003 [0.024]
Toledo	-0.046** [0.023]	-0.049** [0.020]
Valencia	-0.069*** [0.025]	-0.072*** [0.022]
Valladolid	-0.039 [0.024]	-0.039* [0.022]
Biscay	-0.036 [0.024]	-0.036 [0.023]
Zamora	-0.063** [0.027]	-0.060** [0.024]
Saragossa	-0.005 [0.026]	-0.008 [0.024]
Ceuta	-0.103*** [0.028]	-0.102*** [0.025]
Melilla	-0.091*** [0.032]	-0.088*** [0.028]
<i>Marital Status:</i>		
Married		0.141*** [0.007]
Divorced		0.132***

	[0.007]
Widowed	-0.032***
	[0.008]

Constant	0.474*** [0.018]	0.383*** [0.017]
Sample Size	2382721.000	2382721.000
r2	0.095	0.115

Notes: In this table, the dependent variable is the economically active population. The sample is taken by the 2011 Spanish Census provided by the (Instituto Nacional de Estadística (INE), 2018) aged 18-66. 1Estimates are reports as marginal effects. Standard errors are for marginal effects are in parentheses and statistical significance is indicated by * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 6. The effect of different time allocation for divorced female Spanish Population on the labour force (extended version).

Regressors	Model 7	Model 8	Model 9	Model 10
<i>Level of education:</i>				
Primary education	0.153*** [0.002]	0.153*** [0.002]	0.153*** [0.002]	0.153*** [0.002]
Secondary education	0.249*** [0.005]	0.249*** [0.005]	0.250*** [0.005]	0.250*** [0.005]
Tertiary education	0.419*** [0.004]	0.418*** [0.004]	0.420*** [0.004]	0.421*** [0.004]
<i>Marital Status:</i>				
Married	0.135*** [0.007]	0.136*** [0.007]	0.135*** [0.007]	0.135*** [0.007]
Divorced	0.060*** [0.008]	0.065*** [0.008]	0.066*** [0.008]	0.066*** [0.008]
Widowed	-0.033*** [0.008]	-0.032*** [0.008]	-0.031*** [0.008]	-0.030*** [0.008]
<i>Provinces:</i>				
Albacete	-0.068*** [0.023]	-0.068*** [0.023]	-0.069*** [0.023]	-0.069*** [0.023]
Alicante	-0.081*** [0.021]	-0.081*** [0.021]	-0.082*** [0.021]	-0.082*** [0.021]
Almeria	-0.050** [0.021]	-0.050** [0.021]	-0.051** [0.021]	-0.052** [0.021]
Avila	-0.046* [0.024]	-0.046* [0.024]	-0.047* [0.024]	-0.047** [0.024]
Badajoz	-0.112*** [0.022]	-0.112*** [0.022]	-0.113*** [0.022]	-0.114*** [0.022]

Balearic Islands	-0.032	-0.033	-0.033	-0.033
	[0.021]	[0.021]	[0.021]	[0.021]
Barcelona	-0.004	-0.005	-0.005	-0.005
	[0.022]	[0.022]	[0.022]	[0.022]
Burgos	-0.008	-0.009	-0.009	-0.010

	[0.024]	[0.024]	[0.024]	[0.024]
Caceres	-0.087***	-0.087***	-0.088***	-0.088***
	[0.022]	[0.022]	[0.022]	[0.022]
Cadiz	-0.166***	-0.166***	-0.167***	-0.167***
	[0.021]	[0.021]	[0.021]	[0.021]
Castellón	-0.039*	-0.039*	-0.040*	-0.040*
	[0.022]	[0.022]	[0.022]	[0.022]
Ciudad Real	-0.087***	-0.087***	-0.089***	-0.089***
	[0.022]	[0.022]	[0.023]	[0.023]
Cordoba	-0.110***	-0.110***	-0.111***	-0.111***
	[0.021]	[0.021]	[0.022]	[0.022]
Corunna	-0.045**	-0.045*	-0.046**	-0.046**
	[0.023]	[0.023]	[0.023]	[0.023]
Cuenca	-0.036	-0.036	-0.037	-0.037
	[0.023]	[0.023]	[0.023]	[0.023]
Girona	0.031	0.030	0.030	0.030
	[0.022]	[0.021]	[0.022]	[0.022]
Granada	-0.145***	-0.145***	-0.146***	-0.146***
	[0.021]	[0.021]	[0.022]	[0.022]
Guadalajara	-0.006	-0.006	-0.007	-0.008
	[0.021]	[0.021]	[0.021]	[0.021]
Gipuzkoa	-0.004	-0.004	-0.005	-0.005
	[0.025]	[0.025]	[0.025]	[0.025]
Huelva	-0.133***	-0.133***	-0.135***	-0.135***

	[0.021]	[0.021]	[0.021]	[0.021]
Huesca	0.007	0.007	0.006	0.006
	[0.023]	[0.023]	[0.023]	[0.023]
Jaen	-0.129***	-0.129***	-0.131***	-0.131***
	[0.022]	[0.022]	[0.022]	[0.022]
Leon	-0.056**	-0.056**	-0.057**	-0.058**
	[0.023]	[0.023]	[0.023]	[0.023]
Lleida	0.032	0.032	0.031	0.032
	[0.022]	[0.022]	[0.022]	[0.022]
La Rioja	0.006	0.006	0.005	0.005
	[0.023]	[0.023]	[0.023]	[0.023]
Lugo	0.002	0.004	0.003	0.002
	[0.024]	[0.024]	[0.024]	[0.024]
Madrid	-0.009	-0.010	-0.011	-0.011
	[0.022]	[0.022]	[0.022]	[0.022]
Malaga	-0.103***	-0.103***	-0.104***	-0.104***
	[0.021]	[0.021]	[0.021]	[0.021]
Murcia	-0.067***	-0.067***	-0.068***	-0.069***
	[0.022]	[0.022]	[0.022]	[0.022]
Navarre	0.002	0.002	0.002	0.002

	[0.025]	[0.025]	[0.025]	[0.025]
Ourense	-0.051**	-0.051**	-0.052**	-0.052**
	[0.024]	[0.024]	[0.024]	[0.024]
Asturias	-0.088***	-0.089***	-0.090***	-0.090***
	[0.024]	[0.024]	[0.024]	[0.024]
Palencia	-0.025	-0.026	-0.027	-0.027
	[0.024]	[0.024]	[0.024]	[0.024]
Las Palmas	-0.070***	-0.070***	-0.070***	-0.070***
	[0.022]	[0.022]	[0.022]	[0.022]
Pontevedra	-0.066***	-0.066***	-0.067***	-0.068***

	[0.023]	[0.023]	[0.023]	[0.023]
Salamanca	-0.053**	-0.053**	-0.055**	-0.055**
	[0.023]	[0.023]	[0.023]	[0.023]
Santa Cruz de Tenerife	-0.085***	-0.085***	-0.086***	-0.086***
	[0.023]	[0.023]	[0.023]	[0.023]
Cantabria	-0.054**	-0.054**	-0.055**	-0.056**
	[0.024]	[0.024]	[0.024]	[0.024]
Segovia	-0.001	-0.001	-0.002	-0.003
	[0.024]	[0.024]	[0.024]	[0.024]
Seville	-0.123***	-0.123***	-0.124***	-0.124***
	[0.021]	[0.021]	[0.021]	[0.021]
Soria	0.037	0.037	0.036	0.035
	[0.027]	[0.027]	[0.027]	[0.027]
Tarragona	-0.021	-0.022	-0.022	-0.022
	[0.021]	[0.021]	[0.021]	[0.021]
Teruel	0.004	0.004	0.003	0.003
	[0.024]	[0.024]	[0.024]	[0.024]
Toledo	-0.048**	-0.049**	-0.050**	-0.051**
	[0.020]	[0.020]	[0.020]	[0.020]
Valencia	-0.072***	-0.072***	-0.073***	-0.073***
	[0.022]	[0.022]	[0.022]	[0.022]
Valladolid	-0.039*	-0.039*	-0.040*	-0.040*
	[0.022]	[0.022]	[0.022]	[0.022]
Biscay	-0.037	-0.036	-0.037*	-0.038*
	[0.022]	[0.022]	[0.022]	[0.022]
Zamora	-0.059**	-0.059**	-0.061**	-0.061**
	[0.024]	[0.024]	[0.024]	[0.024]
Saragossa	-0.008	-0.008	-0.009	-0.009
	[0.024]	[0.023]	[0.024]	[0.024]
Ceuta	-0.102***	-0.102***	-0.104***	-0.103***
	[0.025]	[0.025]	[0.025]	[0.025]
Melilla	-0.088***	-0.088***	-0.089***	-0.089***
	[0.028]	[0.028]	[0.028]	[0.028]
Female	-0.121***	-0.121***	-0.130***	-0.130***
	[0.002]	[0.002]	[0.003]	[0.003]
Divorced#Female	0.125***	0.123***	0.117***	0.118***
	[0.004]	[0.005]	[0.007]	[0.007]

Care_childunder15	0.060***	0.062***	0.065***	0.066***
	[0.002]	[0.002]	[0.002]	[0.002]
.Divorced#Care_childunder15	0.011*	0.015**	0.013**	0.014**
	[0.006]	[0.006]	[0.006]	[0.006]
Female#Care_childunder15	-0.056***	-0.057***	-0.061***	-0.061***
	[0.002]	[0.002]	[0.002]	[0.002]
Divorced#Female#Care_childunder15	-0.016**	-0.020**	-0.018**	-0.018**
	[0.008]	[0.008]	[0.008]	[0.008]
Care_elderlyhealth		-0.051***	-0.048***	-0.045***
		[0.003]	[0.003]	[0.003]
Divorced#Care_elderlyhealth		-0.049***	-0.050***	-0.048***
		[0.009]	[0.009]	[0.009]
Female#Care_elderlyhealth		0.018***	0.015***	0.015***
		[0.003]	[0.003]	[0.003]
Divorced#Female#Care_elderlyhealth		0.040***	0.041***	0.041***
		[0.011]	[0.011]	[0.011]
Domestic burden			-0.027***	-0.027***
			[0.003]	[0.003]
Divorced# Domestic burden			0.011*	0.011*
			[0.006]	[0.006]
Female# Domestic burden			0.031***	0.030***
			[0.002]	[0.002]
Divorced#Female# Domestic burden			-0.006	-0.007
			[0.008]	[0.008]
Care_volunteering				-0.071***
				[0.003]
Divorced# Care_volunteering				-0.011
				[0.013]
Female# Care_volunteering				0.015***
				[0.004]
Divorced#Female#Care_volunteering				-0.018
				[0.017]
Constant	0.382***	0.385***	0.392***	0.394***
	[0.016]	[0.016]	[0.017]	[0.017]
Sample Size	2.382.721.000	2.382.721.000	2.382.721.000	2.382.721.000
r2	0.117	0.117	0.118	0.118

Notes: In this table, the dependent variable is the economically active population. The sample is taken by the 2011 Spanish Census provided by the (Instituto Nacional de Estadística (INE), 2018) and taken female divorced population aged 18-66. Standard errors are in parentheses and statistical significance is indicated by * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$